

Appl. No. : 10/648,009
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AMENDMENTS TO THE CLAIMS

1. **(Currently amended)** A building material, comprising:
~~a plurality of synthetic microspheres comprising a binding agent, wherein the binding agent comprises between about 0.1 to 50 wt.% of the weight of the microspheres, wherein the microspheres have an alkali metal oxide content of less than about 10 wt.% based on the weight of the microspheres, wherein the synthetic microspheres are substantially chemically inert and have a higher calcium content as compared to cenospheres derived from coal combustion~~

a plurality of synthetic microspheres having an average particle diameter of between about 30 to 1,000 microns, said synthetic microspheres comprising about 6 to 40 wt.% aluminum oxide, about 5.2 to 30 wt.% calcium oxide, about 4 to 10 wt.% sodium oxide, wherein the microspheres have an alkali metal oxide content of less than about 10 wt.% based on the weight of the microspheres, wherein the synthetic microspheres are substantially chemically inert.

2. **(Previously presented)** The building material of Claim 1, further comprising a cementitious matrix.

3. **(Previously presented)** The building material of Claim 2, wherein the synthetic microspheres are substantially chemical inert when in contact with the cementitious matrix.

4. **(Canceled)**

5. **(Previously presented)** The building material of Claim 4, wherein the synthetic microspheres comprise at least one synthetically formed cavity that is substantially enclosed by an outer shell.

6. **(Previously presented)** The building material of Claim 5, wherein the at least one cavity comprises about 30-95% of the aggregate volume of the microsphere.

7. **(Previously presented)** The building material of Claim 2, further comprising one or more fibers in the cementitious matrix.

8. **(Previously presented)** The building material of Claim 7, wherein at least some of the fibers are cellulose fibers.

9. **(Previously presented)** The building material of Claim 1, further comprising a hydraulic binder.

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10. **(Previously presented)** The building material of Claim 1, wherein the synthetic microspheres comprise an aluminosilicate material.

11. **(Previously presented)** The building material of Claim 1, further comprising cenospheres derived from coal combustion wherein the average particle diameter of the cenospheres derived from coal combustion is substantially equal to the average particle size of the synthetic microspheres.

12. **(Previously presented)** The building material of Claim 1, wherein the building material is used as a pillar.

13. **(Previously presented)** The building material of Claim 1, wherein the building material is used as a roofing tile.

14. **(Previously presented)** The building material of Claim 1, wherein the building material is used as a siding.

15. **(Previously presented)** The building material of Claim 1, wherein the building material is used as a wall.

16. **(Canceled)**